

Remarks

Claims 17 and 24 are cancelled, claims 16, 18, 20, 21, 23, 25, 27, 28, 29, 31 and 33 are amended and claims 34 to 40 are added. Claims 16, 18, 20 to 23, 25 and 27 to 40 are pending in this application of which claims 16, 23, 31 and 37 are in independent form.

Claims 23 and 30 to 33 were rejected under 35 USC 103(a) as being unpatentable over Zonneveld in view of Pensel et al. The following will show that claim 23, as amended, patentably distinguishes the applicants' invention over this combination of references.

Zonneveld shows an operating microscope wherein a video camera 40 picks up the transmitted part of the visualization of the display unit 33 and a reflected part of the image of the operating field itself and converts them into a video signal which is applied to a monitor 41 (see column 6, lines 48 to 51). The whole document is absolutely silent with respect to a device for synchronizing the illumination of the image display unit with said image sensor (in Zonneveld a video camera 40) to avoid flickering. Accordingly, Zonneveld does not make even a suggestion as to a device for synchronizing the illumination of the image display unit with the image sensor to avoid flickering as set forth in applicants' claim 23 with the clause:

"a device for synchronizing the illumination of said image display unit with said image sensor to avoid flickering;"

However, even if by some happenstance, our artisan stumbled upon Pensel et al, it would not be possible for our person of ordinary skill to hit upon this feature and limitation by combining the teachings of Zonneveld and Pensel et al since also Pensel et al does not disclose or suggest the above-mentioned feature.

Furthermore Zonneveld shows a microscope wherein the image data is displayed on miniature display tubes 34 and 35 of a display unit 33 and coupled into the surgical microscope via a coupling device comprising coupling-in mirrors 37 and 38 (see column 6, lines 5 to 7, and lines 13 to 16). Zonneveld is absolutely silent with respect to any projection system. Therefore, the microscope in Zonneveld does not show an image projection module further including an imaging optic having a plano-convex lens and a plano-concave lens mounted downstream of the LCD image display unit for transmitting the data image to the beam splitter. The image projection module is set forth in claim 23 with the clause:

"said image projection module further including an imaging optic having a plano-convex lens and a plano-concave lens mounted downstream of said LCD image display unit for transmitting said data image to said beam splitter."

Using an image projection module including an imaging optic having a plano-convex lens and a plano-concave lens is very advantageous because of its excellent imaging power (see application, page 2, lines 9 to 12). Furthermore, planar lens surfaces result in favorable manufacturing costs (see application, page 2, lines 23 and 24).

Applicants submit that it is also not possible for our person of ordinary skill to hit upon the above-mentioned feature and limitation by combining the teachings of Zonneveld and Pensel et al since also Pensel et al does not disclose or suggest the above-mentioned feature.

Also, the other prior art will not lead our person of ordinary skill to the above-mentioned feature and limitation. This also holds true for Mercado which was applied against claims 24, 25 and 27 in combination with Zonneveld and Pensel et al.

Mercado shows a projection lens system for excimer laser exposure lithography in which a pattern formed on a mask or a reticle is transferred onto a substrate such as a semiconductor wafer or a glass plate (see column 1, lines 6 to 9). Therefore, the projection lens system is a very specialized lens system configured for excimer laser exposure lithography having more than thirty lenses (see FIG. 1A). Furthermore, the lens system is designed to work together with an illumination system 100 including a source of illumination such a KrF excimer laser emitting illumination at a very short wavelength of 248.4 nanometers or an ArF excimer laser emitting illumination at a very short wavelength of 193 nanometers to produce finer resolution patterns at high production rates (see column 1, lines 36 to 39 and lines 54 to 60, and column 4, lines 24 to 28). Our person of ordinary skill would not have considered using the projection lens system shown in Mercado in the microscope shown in Zonneveld for transmitting the data image of the LCD-display to the beam splitter since the projection lens system shown in

Mercado is designed to work together with an excimer laser as source of illumination and is designed to transfer the pattern formed on a mask onto a substrate (wafer or glass) with a high resolution. Therefore, our person of ordinary skill could not have reached these features and limitations by combining the teachings of Zonneveld, Pensel et al and Mercado.

In view of the above, applicants submit that claims 23, 25 and 27 patentably distinguish their invention over the combinations of references applied thereagainst and should now be allowable. Claims 28 to 30 and 35 are dependent directly from claim 23 so that they too should now be allowable.

The following will show that also the amended claim 31 patentably distinguishes the applicants' invention over the combination of Zonneveld in view of Pensel et al.

Zonneveld in combination with Pensel et al differs from independent claim 31, for example, in that this reference does not show an image projection module including an imaging optic having a plano-convex lens and a plano-concave lens mounted downstream of the LCD image display unit for transmitting the data image to the beam splitter. For the same reasons advanced above in connection with claim 23, it is not possible for our person of ordinary skill to hit upon this feature and limitation by combining Zonneveld and Pensel et al or these two references in combination with Mercado since none of these references suggest an image projection module including the described imaging optic.

In view of the above, applicants submit that claim 31 patentably distinguishes their invention over this combination of

references and should now be allowable. Claims 32, 33 and 36 are dependent directly or indirectly from claim 31 so that they too should now be allowable.

Claims 16 and 22 were rejected under 35 USC 103(a) as being unpatentable over Zonneveld in view of Pensel et al and further in view of Spink et al. The following will show that claim 16 patentably distinguishes the applicants' invention over this combination of references.

Zonneveld in combination with Pensel et al or Spink et al differs from independent claim 16, for example, in that this combination does not show an image projection module further including an imaging optic having a plano-convex lens and a plano-concave lens mounted downstream of an LCD image display unit for transmitting the data image to the beam splitter. For the same reasons presented above in connection with claim 23, it is not possible for our person of ordinary skill to hit upon this feature and limitation by combining Zonneveld and Pensel et al with Spink et al and/or Mercado since none of these references show an image projection module including the described imaging optic.

In view of the above, applicants submit that claim 16 patentably distinguishes their invention over this combination of references and should now be allowable. Claims 18, 20, 21, 22 and 34 are dependent directly or indirectly from claim 16 so that they too should now be allowable.

The applicants will now show that also added claim 37 patentably distinguishes their invention over the above combination of references.

As already shown above, Zonneveld is absolutely silent with respect to a device for synchronizing the illumination of the image display unit with the image sensor to avoid flickering. Accordingly, Zonneveld cannot suggest a device for synchronizing the illumination of the image display unit with the image sensor to avoid flickering. Furthermore, applicants submit that it is also not possible for our person of ordinary skill to hit upon the this feature and limitation by combining the teachings of Zonneveld and Pensel et al since also Pensel et al does not disclose the above-mentioned feature. However, even if Pensel et al or any other reference would contain such a device, what in Zonneveld would motivate our artisan to even look for such a reference? There is nothing in Zonneveld which would even get our artisan started to move in such a direction.

In view of the above, applicants submit that claim 37 patentably distinguishes their invention over Zonneveld in combination with Pensel et al or any of the other cited references so that claim 37 too should now be allowable. Claims 38, 39 and 40 are dependent directly from claim 37 so that they too should be allowable.

Reconsideration of the application is earnestly solicited.

Respectfully submitted,


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